



## STAGE 2 – DISINFECTION BYPRODUCTS MONITORING CHART - SURFACE WATER (SW), GWUDI, AND SW PURCHASE SYSTEMS

**Applies to:** Community and non-transient non-community SW systems and ground water under the direct influence (GWUDI) of surface water systems that use a primary or residual disinfectant (other than UV light) or deliver water that has been treated with a primary or residual disinfectant (other than UV light). [See 15A NCAC 18C .2008 (Subpart V)]

Population	ROUTINE Monitoring Requirements [§141.621(a)]		REDUCED Monitoring Requirements [§141.623(a) and (b)]		INCREASED Monitoring Requirements [§141.623(c) and §141.625(a)]	
	Frequency	Required # of Samples	Frequency	Required # of Samples	Frequency	Required # of Samples
< 500	Annually	2 individual samples or 1 dual sample	may <u>not</u> be reduced	N/A	Quarterly	dual samples at all sites
500 - 3,300	Quarterly	2 individual samples	Annually	2 individual samples or 1 dual sample	Quarterly	2 sample sites; dual samples
3,301 - 9,999	Quarterly	2 sample sites; dual samples	Annually	2 sample sites; dual samples	Quarterly	2 sample sites; dual samples
10,000 - 49,000	Quarterly	4 sample sites; dual samples	Quarterly	2 sample sites; dual samples	Quarterly	4 sample sites; dual samples
50,000 - 249,000	Quarterly	8 sample sites; dual samples	Quarterly	4 sample sites; dual samples	Quarterly	8 sample sites; dual samples
250,000 - 999,999	Quarterly	12 sample sites; dual samples	Quarterly	6 sample sites; dual samples	Quarterly	12 sample sites; dual samples
1,000,000 - 4,999,999	Quarterly	16 sample sites; dual samples	Quarterly	8 sample sites; dual samples	Quarterly	16 sample sites; dual samples
≥5,000,000	Quarterly	20 sample sites; dual samples	Quarterly	10 sample sites; dual samples	Quarterly	20 sample sites; dual samples

### NOTES on Disinfection Byproducts Monitoring:

- The frequency, number of samples, and sample locations within the distribution system were established in each water system’s Stage 2-Disinfection Byproduct Compliance Monitoring Plan (CMP). Samples **MUST** be collected in the **month** specified in the approved CMP **and** at the **approved sample locations** in order to receive compliance credit!
- “**2 individual samples or 1 dual sample**” means that only one location with a dual sample set per monitoring period is needed **if** the highest TTHMs and HAA5s concentrations occur at the same location and month, otherwise “**2 individual samples**” must be collected – one at sampling point B01 for Total Trihalomethanes (TTHMs) analysis and one at B02 for Haloacetic Acids (HAA5s) analysis. “**Dual samples**” means that both TTHMs and HAA5s must be analyzed at each of the designated sample locations.
- All scheduled TTHMs and HAA5s samples must be collected during **normal** operating conditions.

Requirements for Change in Disinfection Byproducts Monitoring Schedule	
<b>To REDUCED from ROUTINE</b> [§141.623(a) and (b)]	TTHM LRAA must be ≤ 0.040 mg/L [50% of MCL (0.080 mg/L)] <u>and</u> HAA5 LRAA must be ≤ 0.030 mg/L [50% of MCL (0.060 mg/L)] at ALL locations, <u>and</u> the source water annual average TOC level, before any treatment, must be ≤ 4.0 mg/L at each SW or GWUDI plant.
<b>From REDUCED to ROUTINE (or INCREASED)</b> [§141.623(c)]	If the LRAA based on quarterly monitoring at ANY location exceeds either 0.040 mg/L for TTHMs or 0.030 mg/L for HAA5s, <b>or</b> if the annual (or less frequent) sample at any location exceeds either 0.060 mg/L for TTHMs or 0.045 mg/L for HAA5s, <b>or</b> if the source water annual average TOC level, before any treatment, is > 4.0 mg/L at any SW or GWUDI treatment plant, system must resume ROUTINE monitoring [or begin INCREASED monitoring, if applicable (see below)].
<b>To INCREASED</b> [§141.625(a)]	Any system monitoring annually or less frequently must increase monitoring to dual sample sets once per quarter at ALL locations if any individual TTHM sample result exceeds the MCL of 0.080 mg/L or any individual HAA5 sample result exceeds the MCL of 0.060 mg/L.
<b>To ROUTINE from INCREASED</b> [§141.625(c)]	After conducting at least four consecutive quarters of increased monitoring system must have: TTHM LRAA ≤ 0.060 mg/L <u>and</u> HAA5 LRAA ≤ 0.045 mg/L for EVERY monitoring location.